

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013178**Date Inspected:** 10-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

7CW

Shield Metal Arc Welding (SMAW) VT repair welding was performed on weld joints 07~12 located on DP648-001 cross beam side of segment. Welder is identified as Mr. Bi Shijian (068761). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1.

7BW

Shield Metal Arc Welding (SMAW) VT repair welding was performed on weld joints 13~18 located on DP647-001 cross beam side of segment. Welder is identified as Mr. Bi Shijian (068761). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1.

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7DW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA043 counter weight of segment. Welder is identified as Mr. Yun Chuansheng (045221). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1377 repair procedure.

Y Location of repairs areas by above noted welder (045221) is located at 4260mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA043 counter weight of segment. Welder is identified as Mr. Yun Chuansheng (066002). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1377 repair procedure.

Y Location of repairs areas by above noted welder (066002) is located at 10600 and 10820mm.

7CE+7DE

Submerged Arc Welding (SAW) welding was performed on weld joint 008 located at OBE7A deck plate splice of segment. Welder is identified as Mrs. Gu Caihong (053748). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-223(2)1T-1.

Submerged Arc Welding (SAW) welding was performed on weld joint 008 located at OBE7A deck plate splice of segment. Welder is identified as Mrs. Mu Jingfen (054458). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-223(2)1T-1.

Flux Core Arc Welding (FCAW) welding was performed on weld joint 008 located at OBE7A deck plate splice of segment. Welder is identified as Mr. Chen Zhenghua (220067). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-223(2)1T-1.

Flux Core Arc Welding (FCAW) welding was performed on weld joint 007 located at OBE7A deck plate splice of segment. Welder is identified as Mr. Li Guimin (220069). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-223(2)1T-1.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 019 located at DP656-001 cross beam side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-3213-B-U3b.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 051~057 located at SP533-001 cross beam side of segment. Welder is identified as Mr. Shi Yan (068920). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233-B-U4b-F-1.

7DE

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Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA042 bike path side of segment. Welder is identified as Mr. Feng Huajun (066258). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1378 repair procedure.

Y Location of repairs areas by above noted welder (066258) is located at 7300 and 6840mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA043 counter weight of segment. Welder is identified as Mr. Chen Renzhi (058087). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1378 repair procedure.

Y Location of repairs areas by above noted welder (058087) is located at 13010mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA042 bike path side of segment. Welder is identified as Mr. Zhao Guanglin (044779). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1378 repair procedure.

Y Location of repairs areas by above noted welder (044779) is located at 3190~3250mm and 3580mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA042 bike path side of segment. Welder is identified as Mr. Sun Lingling (048047). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1378 repair procedure.

Y Location of repairs areas by above noted welder (048047) is located at 5405~5490mm.

### Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions at Tail Assembly Yard. Locations and description of work are as followed:

#### 7BW+7CW

1. Ut reject excavation in progress at the side plate to side plate weld joint OBW7B-007 located counter weight side of segment. Y locations are as followed: 200mm, 1700mm, 2690mm, 3000mm, 3780mm, 4200mm, 4770mm, 4880mm, 5330mm, 6120mm and 7380mm.

#### 7BE

1. Ut reject excavation in progress of weld joint SEG036C-043 located at the LD to FB web bike path side of segment. Y locations are as followed: 100mm

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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